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TITLE : PRODUCTION OF RUTHENIUM CATALYST AND STEAM REFORMING METHOD FOR HYDROCARBON EMPLOYING THE CATALYST

ABSTRACT : PURPOSE: To carry a ruthenium component near a zirconium component in a highly dispersed state by a simple process by bringing a solution containing a ruthenium compound, a zirconium compound, and compounds of alkaline earth metal or rare earth element into contact with a carrier.

CONSTITUTION: A ruthenium-based catalyst is produced by bringing a solution containing a ruthenium compound, a zirconium compound, and at least one kind of compounds selected from alkaline earth metal compounds and rare earth metal compounds into contact with a carrier. The ruthenium-based catalyst is employed for steam reforming of hydrocarbons. Additionally, a compound selected from among nickel compounds and cobalt compounds is added to the solution. Ruthenium chloride may be used as the ruthenium compound and an oxychloride of zirconium may be used as the zirconium compound. Mg or Ca may be used as the alkaline earth metal and Y or La is used as the rare earth metal. On the other hand, alumina is used as the carrier.

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